

What's New In LOAD3_16 ?

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LOAD3_16 Description

This zip file (*tech_LOAD3_16_full_package.zip*) contains all the files to upgrade the following hardware to the following revision:

- **NXAMP4x1** to firmware revision **LOAD3_16**
- **NXAMP4x4** to firmware revision **LOAD3_16**
- **NXDT104** to firmware revision **0x1C02**
- **NXES104** to firmware revision **0x0D0E**

NXAMP revision can be read on front panel screen during startup or in AVS-Monitor in the *Control page* of the device. NXDT104/NXES104 revision can be read from the *Properties page* of AVS-Monitor.

NXD104/NXES104 have multiple processors/firmware layer. Below is a detailed description of these firmwares.

- NXDT104 with firmware package 0x1C02 means
 - Dante Software version 3.6.4.16
 - Dante Firmware version 3.4.2.8
 - Product version (Dante Controller) 1.0.0
 - Software version (Dante Controller) 0.2.0
- NXES104 with firmware package 0x1D0E means
 - Ethersound kernel version 3.09

The Windows™ based software **NXWIN4.1.1.2** included in this package must be used to upgrade all above hardware.

When NXDT104 or NXES104 is fitted in the NXAMP, network port should be used to upgrade the firmware of these cards as well. If upgrade is done through the serial port of the NXAMP, only NXAMP firmware will be updated.

Documentation files

- *LOAD3_16_whats_new.pdf* This document.
- *LOAD3_16_4ch_setups_list.pdf* 4ch Nexo setup list (pdf).
- *LOAD3_16_4ch_setups_list.xlsx* 4ch Nexo setup list (xlsx).
- *LOAD3_16_speakers_library.pdf* Nexo speakers library (pdf).
- *LOAD3_16_speakers_library.xlsx* Nexo speakers library (xlsx).
- *NXAMP4x1_NXAMP4x4_USER_MANUAL_EN_v2.9.pdf* NXAMP user manual.

Software files

- *NXwin4.1.1.2 Setup.exe* Windows™ (XP to Eight) software for updating NEXO firmware setup version 4.1.1.3. Use with .dld files.
- *AVS-ESMonitor SetUp v3.20.5.exe* Windows™ (XP to Eight) software for remote control of NXAMP devices over Ethersound™ or Dante™ networks.

Please read carefully the NXAMP user manual (NXAMP4x1_NXAMP4x4_USER_MANUAL_EN_v2.9.pdf) to properly use Nxwin and upgrade firmware on your device.

Firmware Files

- *LOAD3_16.dld* last revision of NEXO firmware. **To be used with NXAMP4x1, NXAMP4x4, NXDT104, NXES104.**
- *LOAD3_15.dld* Previous NEXO firmware. Allow to revert to previous version in case of problem.

LOAD3_16 new features description

Critical update

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_55 or higher.

New cabinet support

None.

Firmware changes / Bug fixes

NXAMP

- Analog fallback option (automatically uses Analog inputs when digital audio from Ethersound or Dante network is missing).
- Hardware mute option implemented: lift amplifier relays when muted.
- Automatic output speakon crossing can be disabled to be compatible with some user patch panel.
- Improve DMU view-meters.
- New startup procedure when NXDT104 is fitted to solve bad audio clock on startup problem (would lit sometimes signal LED and eventually would trigger a false short circuit alarm on startup).

NXDT104

- Based on Dante software v3.6.4.16, allows NXAMP Dante patch to be done from Yamaha CL with firmware v1.7.

Warning! Once a NXDT104 has been upgraded to firmware 0x1C02, it cannot be used any more with previous versions of the NXAMP firmware.

If a NXAMP with a firmware revision older than LOAD3_16 boots up with a NXDT104 with firmware 0x1C02 or above, it will display the following error message:

"I2c Error: No Ack Received"

Please upgrade your NXAMP firmware to LOAD3_16 or above to solve this problem.

Software change

- NXAMP current parameters and scenes can be copy/paste from one amplifier to other or to group of amplifier from AVS-ESmonitor (from AVS-ESmonitor v3.20.5 included in this package) or Nemo (from version 1.3).
- Improve AVS-ESmonitor view-meters.

LOAD3_16 cabinets setups changes

LOAD3_16 features the latest improvements on STM setups:

EQ changes

- STM M46 HF ArrayEQ changed from 6 KHz high shelf to 10 KHz high shelf.

Phase / Alignment changes

- None

Protection changes

- Small adjustment of Peak limiter att/rel time on most setups.
- Adjustment of the STM M46 MF temperature protection.
- Solve a bug on GeoD Front Passive setup regarding VCEQ threshold.

We strongly recommend you update to this latest firmware so that all STM systems are consistent and compatible.

Functions changes

- On Nexo setup number 19 (GeoD Passive Wideband), channel 1 and 2 (Back and Front) are now properly linked.
- When using S118 cardio with custom setups it is now possible to select only S118 front or S118 back.

Cabinets setups label

To provide a better and more systematic view of the cabinet's setup name, the following acronyms are used.

WB = Wideband setups (lower high pass filter)

XO = Cross over setups (higher high pass filter)

PA = Passive mode (on products providing an active/passive mode)

AC = Active mode (on products providing an active/passive mode)

MON = Monitor setups (no additional delay for phase adjustment, minimized latency)

BR = Bridge mode

CD = Cardioid mode (on products allowing Omni/Cardio switching)

OM = Omni mode (on products allowing Omni/Cardio switching)

B2B = Back to back mode (on products requiring two cabinets for Cardio)

S2S = Side to side mode (on products requiring two cabinets for Cardio)

Known Issue

NXAMP

- When building a custom active setup with the setup builder (from NXAMP front panel or from ESmonitor) the patch and delay are not linked between the two channels. Please check that the same patch and the same delay are applied to both channels in active mode.

Contact

Please contact technical@nexo.fr for any bug report or for further explanation concerning the LOAD3_16.

History of previous firmware

LOAD3_15 what's new

Critical update

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_55 or higher.

New cabinet support

The new LS18 sub is now supported, through two different bandwidths available from the CUSTOM setup menu.

- LS18 with a 35 to 85 Hz bandwidth
- LS18 with a 35 to 120 Hz bandwidth

Four new NEXO four channels setups are also available:

- LS18 x 4 channels (85 Hz low pass setup)
- PS15R2 passive crossover with LS18 (85 Hz low pass setup)
- S1210 passive crossover with LS18 (85 Hz low pass setup)
- S1230 passive crossover with LS18 (85 Hz low pass setup)

See *LOAD3_15_4ch_setups_list* and *LOAD3_15_speakers_setups_list* documents for more details.

Firmware changes / Bug fixes

NXAMP

- Supports new Dante kernel, allows NXAMP Dante patch to be done from Yamaha CL with firmware v1.7.
- Analog fallback option (automatically uses Analog inputs when digital audio from network is missing).
- NXAMP current parameters and scenes can be copy/paste from one amplifiers to other or to group of amplifier from AVS-ESmonitor.
- Hardware mute option implemented: lift amplifier relays when muted.
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- Solve a bug with digital input gain on NXAMP4x1 (5.5 dB was missing).

Software change

None.

LOAD3_15 cabinets setups changes

LOAD3_15 features the latest improvements on STM setups:

EQ changes

- +6 dB gain has been added on all STM setups (M46, B112 and B118).
- STM M46 HF above 8500 Hz has been lowered by 2 dB.
- All STM "C1" setups have been removed for better clarity.
- HF Array EQ is now implemented on some active setups:
 - 45N12 Active HF
 - Alpha M3 HF
 - AlphaE Active HF
 - GeoD Active HF
 - S1210 Active HF
 - PS15 Active HF
 - PS15R2 Active HF
- Small modification on the LF array EQ for LS400 and LS600.

Phase / Alignment changes

- Fine delay adjustment (0.15 ms) on M46 MF 85-850 setup.

Protection changes

- Small adjustments on M46 & B112 Peak limiter threshold and att/rel time.
- Small adjustment of Peak limiter att/rel time on most setups.
- Release the Temperature protection on M46 MF by 3 dB.
- Fine adjustment on M46 MF VCEQ.

We strongly recommend you update to this latest firmware so that all STM systems are consistent and compatible.

Known Issue

NXAMP

- When building a custom active setup with the setup builder (from NXAMP

front panel of from ESmonitor) the patch and delay are not linked between the two channels. Please check that the same patch and the same delay are applied to both channels in active mode.

ESmonitor

- Under Windows 8, when returning from sleep mode, sometimes ESmonitor cannot start. Reboot is needed.

NXwin

- Flashing the NXAMP firmware through one of the NXDT104 ports is possible only if a DHCP server is running on the network.

LOAD3_14 what's new

Critical update

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_55 or higher.

New cabinet support

None.

Firmware changes / Bug fixes

NXAMP

- Small change in the gain structure when using analog input.

Software change

- ESmonitor and Nxwin4 are now compatible with Windows 8 operating system.

LOAD3_14 cabinets setups changes

EQ changes

LOAD3_14 features the latest improvements on STM setups:

- B112: addition of 60 Hz -180 Hz setup and 85 Hz – 180 Hz setup
- M46: addition of 180 Hz – 20 kHz setup
- M46: +2 dB in the 300 Hz – 500 Hz region and addition of a VCEQ at 790 Hz
- M46: -2 dB on HF shelving filter

We strongly recommend you update to this latest firmware so that all STM systems are consistent and compatible.

Setups for 2x45N12 have been modified between 2 kHz and 4 kHz range for improved coherence with 1x45N12 setups.

Please note that all setups others than STM and 45N12 remain unchanged.

Phase / Alignment changes

None.

Protection changes

- VCEQ has been added on M46 at 790 Hz.

Known Issue

NXAMP

- When building a custom active setup with the setup builder (from NXAMP front panel or from ESmonitor) the patch and delay are not linked between the two channels.

Please check that the same patch and the same delay are applied to both channels used in active mode.

LOAD3_13 what's new

There has not been any official release of LOAD3_13.

LOAD3_12 what's new

Critical update

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_55 or higher.

New cabinet support

The NEXO STM Series features two layers of equalization:

- First layer "**STM**" features a full range linear response;
- "**STM C1**" belongs to a new layer having additional equalization points, defined in collaboration with experienced touring engineers.

Both sets of setups use the latest generation of NEXO digital processing to ensure a linear phase frequency response fully compatible with other NEXO speakers range, allowing easy time alignment when several systems are mixed together.

- The **M46** Main module is available in four modes: **Flown** or **Stack**, each being **Standard** or **C1** (see above). Two high pass frequencies are available for each mode (85 Hz and 120 Hz).
- The **B112** Bass module is available in two modes: **Standard** and **C1** (see

above). Two high pass frequencies are available for the each mode (55 Hz and 60 Hz).

- The **S118** offers three different setups to be used: In **Omni** mode (with three low pass frequencies available at 60, 85 and 120 Hz), in **Cardio B2B** mode (2 units *Back to Back*, with two low pass frequencies at 60 or 85 Hz) or **Cardio S2S** mode (2 units *Side to Side*).

Refer to STM user manual for more details.

Firmware changes / Bug fixes

The following improvement in the CPU and DSP firmware has been done regarding LOAD3_11:

NXAMP/ DMU/ DPU

- Change on input meters display on ESmonitor and DMU unit; now input meter gain is fixed, independent of input analog gain.
- Solve a bug in GPIO mode 3 and 4 introduced in LOAD3_11.
- Solve a bug in DPU when routing mixed SPK8/SPK4 speakers.

Software change

- ESmonitor has been upgraded to its latest version leading to some improvements in the software and the ES-service as well.

LOAD3_12 cabinets setups changes

EQ changes

- New sets of EQ for STM range (M46 and B112). See above.
- New Array EQ on M46 HF designed to adapt to array curvature (high frequency shelving filter).
- Modified Array EQ on M46 MF designed to compensate for low-frequency coupling (low frequency shelving filter).

Phase / Alignment changes

- Polarity is now correct on S118 Cardio setups.
- Front and rear S118 cardio setups have now linked parameters.

Protection changes

- Improved thermal protection on B112.

LOAD3_11 what's new**Critical update**

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_55 or higher.

Important update

This new firmware supports new accessories/expansion cards for both NXAMP4x1 and NXAMP4x4:

- Support the DMU (Digital Meters Unit for NXAMP).
- Support the DPU (Digital Patching Unit for NXAMP).
- Compatible with NXAMP4x4W (Dual voltage version of the NXAMP4x4).
- Support the NXDT104 (Dante™ expansion card for NXAMP).

New cabinet support

The NEXO STM Series (M46 Main module, B112 Bass module and S118 Sub module) have been integrated with LOAD3_11 (7 NEXO setups total).

- The **M46** Main module is available in two modes: **Stack** and **Flown**. Two high pass frequencies are available for the Flown mode (85 Hz and 120 Hz), whereas Stack mode is high pass at 120 Hz only.
- The **B112** Bass module is available in two modes **Stack** and **Flown**. Two high pass frequencies are available for each mode (55 Hz and 60 Hz).
- The **S118** offers three different setups to be used: In **Omni** mode, in **Cardio B2B** mode (2 units *Back to Back*) or **Cardio S2S** mode (2 units *Side to Side*).

Refer to STM user manual for more details.

Firmware changes / Bug fixes

The following improvement in the CPU and DSP firmware has been done regarding LOAD3_01:

NXAMP

- Support for new accessories/expansion cards (see above).
- Solve a bug in loudspeaker chassis thermal simulation introduced in LOAD3_01.
- Solve a bug in gain structure when multiple inputs are used.
- Revert to LOAD2_58 digital input gain structure.

- Solve a display bug in custom setups builder.
- Solve a bug with global mute function from ESmonitor.
- GeoT 2815 setup has been added in custom setup builder.

NXES104

- New firmware 0x0D0E included in this package allow the display of the network LED activity on the DMU. NXES104 will be automatically upgraded when the firmware of the NXAMP is upgraded through the NXES104 *In* or *Remote* port.

Software change

- Nxwin has been updated to match new DLD file format.
- ESmonitor has been upgraded to support remote control of NXAMP through a Dante™ network when NXDT104 is used.
- Solve a bug in ESmonitor regarding amplifier grouping.

LOAD3_11 cabinets setups changes

EQ changes

- Small adjustment in the RS15 and LS600 high pass filter.
- S2 frequency response is now back on original EQ.
- GeoS1210 Active LF setup was missing a 1.5 dB gain. Now solved.
- Nexo factory setup for GeoT4805 was the 55 Hz crossover, now fixed to 85 Hz.

Phase / Alignment changes

- Fine phase adjustment on GeoS1210 Active setup.
- Optimizing the low end efficiency and coverage on RS18 Cardio setup.

Gain changes

- The global gain balance between speakers has been reviewed to offer the best compromise between tonal balance while reaching the protection of the speaker for the same input level.

Protection changes

- On GeoD passive setup, a new HF VCEQ has been added (already existing on active setups).
- GeoD peak limiter has been improved on both active and passive setups.
- Some VCEQ center frequencies have been slightly adjusted on CD12, S2, GeoD, GeoS805, PS10R2 and RS15 in cardio mode.
- Some peak limiter attack/release has been slightly adjusted on Alpha M3,

B1-15, AEM, B1-18 and GeoT.

LOAD3_02 to LOAD3_10 what's new

There has not been any official release between LOAD3_02 and LOAD3_10.

LOAD3_01 what's new

Critical update

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_55 or higher.

Important update

This new firmware is the first one dedicated only to NXAMP Powered TDcontrollers, offering a massive improvement regarding previous legacy firmwares that were compatible (and thus limited) with older hardware like NX242, NX242-CAI and NX242-ES4:

- **All NEXO systems are now linear phase, all phase compatible from 20 Hz to 20 kHz, with a fixed latency value of 3.56ms (*).**
- **All setups are now available with 60 Hz – 85 Hz – 120 Hz crossover points (**).**
- **All NEXO setups can now be assigned and configured individually on NXAMP channels (**).**
- **GeoS1210 and GeoS1230 setups have been updated.**

* With exception of Alpha and AlphaE setups, phase compatible up to 300 Hz only, and PS15R2 MON setup with latency of 1.66 ms.

** When within system frequency bandwidth.

*** Updated ESmonitor remote control software featuring these functions enclosed.

As a consequence of these new features:

- **If multiple NXAMP are used, do not mix LOAD3_01 and older firmware as setups won't be phase compatible.**
- **LOAD3_01 cannot be loaded in older NEXO Digital TDcontrollers (like NX241, NX242, NX242ES4...).**

New cabinet support

None.

Firmware changes / Bug fixes

The following improvement in the CPU and DSP firmware has been done regarding LOAD2_58:

NXAMP

- New "Custom config" menu allows selecting individual speaker setup on each output of the NXAMP, in bridge mode or not, and various crossover points.
- Solves a bug when other subs were used next to subs connected to a muted NXAMP; now the false short circuit protection is not triggered any more.
- 5.5 dB of gain has been removed when Ethersound inputs are used to match usual analog input gain.
- Solves a bug in the 0 dBFS reference for analog and digital input vu-meters.

Software change

- Nxwin has been updated to match new DLD file format and to solve a bug that causes download to sometimes halt during firmware upgrade when serial port was used on some computers.
- ESmonitor has been upgraded to match the new NXAMP firmware structure (with individual speaker output selection).
- The reliability of the remote control of NXAMP through ESmonitor has been improved.

LOAD3_01 cabinets setups changes**EQ changes**

- GeoS1210 and GeoS1230 setups. Significant improvement has been done to these setups equalization (both in active and passive).

Phase / Alignment changes

- Linear phase / phase compatibility now implemented on all setups: The user only has to enter the physical distance between speakers to be in phase (except Alpha M8/M3, Alpha EM and PS15R2 Mon).

New setups added

- Various crossover options for each speaker (depending of the selected speaker but usually Wideband, 60 Hz, 85 Hz and 120 Hz).

LOAD2_59 to LOAD3_00 what's new

There has not been any official release between LOAD2_59 and LOAD3_00.

LOAD2_58 what's new**Critical update**

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_58 in case of firmware previous to LOAD2_55.

Important update

In some rare cases a DSP crash has been reported on startup with a small number of NXAMPs. This new firmware checks that the DSP is running properly before unmuting the unit.

New cabinet support

None.

Firmware changes / Bug fixes

The following improvement in the CPU and DSP firmware of the NXAMP has been done regarding LOAD2_57:

- The *Input Patch* section of the NXAMP has been improved for better clarity. It now indicates on a more friendly way each NXAMP outputs and connector pin-out for each cabinet. See the user manual revision for a deeper explanation.
- Delay unit can now be switched between ms, meter and feet from the front panel user interface.
- The HEADROOM setting is now limited to 8dB instead of 12dB to prevent overloading of the inputs of the unit.
- GPIO mode 5 (Impedance monitoring) solves a bug when a scene is recalled: The internal burst generator is now properly restarted.
- The two channels of RS15 & RS18 setups in Omni mode are now linked together (gain, delay and patch). It was already the case for Cardio setups.
- The firmware of the NXES104 is now updated to version 0x0D0D. If the firmware of your NXES104 is older than this one, then it will be automatically updated to this revision when the download of the NXAMP starts. The firmware revision can be seen in the properties page of ESmonitor.
- The firmware 0x0D0D offers now a new jitter correction technique that improves the overall dynamic range of the NXAMP by 2 dB, when the NXES104 card is fitted.
- The firmware 0x0D0D offers ASIO support, which allows the user to stream up to four channels of 24 bits, 48 KHz audio from any ASIO host software on a PC computer with a simple Ethernet CAT5 cable between the NXAMP

and the computer.

- Once the firmware of both the NXES104 and the NXAMP is done, the user will be prompt to switch the unit OFF and ON to finish the upgrade of the NXES104.

Software change

- None.

LOAD2_58 cabinets setups changes

EQ changes

- PS15R2 NXS setups. Significant improvement have been done to PS15R2 NXS setups equalization (not the MON nor ANL setups).

Phase / Alignment changes

- S12 setups. Minor changes in phase alignment so every S12 NXS setup (not ANL, not NX242ES4) is phase compatible from 20-20k (s1210-1230 ACTIVE AND PASSIVE) .
- Minor changes made to match active and passive responses of S1210.
- Minor changes made to match active and passive responses of S1230.

New setups added

- 2 x LS600 Bridged setup has been added on NXAMP.
- PS15 XO stereo with S2 XO stereo has been added on NX242ES4, NX242CAI and NXAMP.
- PS15R2 Monitor, two bridged channels setup has been added on NXAMP.

Setups removed

- Alpha S2 Bridged setups on NXAMP have been removed because of too low impedance.

LOAD2_57 what's new

Critical update

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_57 in case of firmware previous to LOAD2_55.

Important update

A bug has been found on NXAMP with some speakers setups in LOAD2_56; when the amplifier is powered on, or after recalling a setup, or after a certain time of use, the sound is sometimes muted on channel 1 and eventually 2.

New cabinet support

None.

Firmware changes / Bug fixes

The following improvement in the CPU and DSP firmware has been done regarding LOAD2_56:

- Solve the "ch1 and sometimes ch2" mute problem on NXAMP (see above).

Software change

- None.

Setups changes

None.

LOAD2_56 what's new**Critical update**

The following critical update has been introduced since the LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

All NXAMP4x4 users are required to upgrade to LOAD2_56 in case of firmware previous to LOAD2_55.

Important update

A bug has been found on GeoS1210 and GeoS1230, wideband passive setups in LOAD2_55 ; Due to an instability of a digital filter, a low level high frequency oscillation can be heard with these setups after some time the system has been powered up (depending on the program material). This issue is solved in this release of the load.

New cabinet support

None.

Firmware changes / Bug fixes

- On NX242, A bug has been solved when the unit was used in with GeoT setups and the delay unit was set to inches (the unit might hang up).
- GeoS12 Active setups LF outputs were lighting Green LED on front panel and/or HF outputs were noisy on setups with HF outputs on channels 3 and 4, on NX242 with NXtension.
- GeoS12 Passive setups Wideband were sometimes generating a low level HF sinewave after several hours of use.
- A bug has been solved on PS8 setups (overprotection).

- Detect now correctly the frequency of Ethersound™ network when connected on NXAMP.
- Sometimes mode 4 x FLAT channels was not accessible on NXAMP.
- Software peak limiter now lighting PEAK LED in case of headroom down on NXAMP.
- Maximum number of cabinets setups stored has been increased on NXAMP.
- Solve a bug when entering Stand-by from ESmonitor in GPIO mode 2 on NXAMP.

Software change

- Nxwin 4.1.0.5 solves serial port download issue on some computers ("Download failed" message just after sending the first block to NXAMP).

Setups changes

There are now 443 different setups supported on 5 hardware, including 2 new setups regarding LOAD2_55. For details see the setup list enclosed.

EQ changes

- PS8 setups. All setups regarding PS8 (Xover and Wideband) have been uploaded to the new reworked EQ.
- ArrayEQ for all 45N12 setups (active, passive, Xover or Wideband) has been improved to compensate for cabinet coupling.
- GeoS1210 and GeoS1230 Active setups have been rolled back to previous (LOAD2_52) EQ on NX242ES4 and NX242CAI hardware.

Phase / Alignment changes

- GeoS1210 and GeoS1230 Active setups have been rolled back to previous (LOAD2_52) phase alignment on NX242ES4 and NX242CAI hardware.

New setups added

- 45N12 setups are now available in active mode on NXAMP for 2 x coupled cabinets set and 3 x coupled cabinets set.

LOAD2_55 what's new**Critical update**

The following critical update has been introduced in LOAD2_55:

A bug has been found and corrected in the NXAMP4x4 firmware regarding amplifier protection.

ALL NXAMP4x4 USERS ARE REQUIRED TO UPGRADE TO LOAD2_55.

New cabinet support

The new NEXO 45N12 wedge setups have been upgraded with LOAD2_56 (18 setups total).

- **45N12 in Stereo Two-way Active mode (Crossover and Wideband)** is supported by NX242CAI, NX242ES4 and NXAMP (Nxstream processing).
- **45N12 in Two-way Active mode (Crossover and Wideband) + LS600 sub-bass** is supported by NX242CAI, NX242ES4 and NXAMP (Nxstream processing).
- **45N12 in Stereo Passive mode (Crossover and Wideband)** is supported by NX242CAI, NX242ES4 (Nxstream processing).
- **45N12 in Four Channels Passive mode (Crossover and Wideband)** is supported by NXAMP (Nxstream processing).
- **45N12 in Stereo Passive mode (Crossover and Wideband) + Stereo LS600 sub-bass** is supported by NXAMP (Nxstream processing).
- **45N12 in Four Channels of LF Active mode Wideband** is supported by NXAMP (Nxstream processing).
- **45N12 in Four Channels of HF Active mode Wideband** is supported by NXAMP (Nxstream processing).

NX242CAI, NX242ES4 and Nxtension firmware changes / Bug fixes

- No change regarding previous firmware.

NXAMP Firmware changes / Bug fixes

- Solve a protection bug on NXAMP4x4 firmware.
- Remove NXAMP latency compatibility with NX24x family of products.
- Improve NXAMP peak limiter.
- Implementation of loudspeaker impedance monitoring through Ethersound™ network (NXAMP integrated HF pilot tone generator can be used).
- Change the automatic dynamic range algorithm when several channels are using the same input.
- Add GPIO mode 5 to remote control the loudspeaker impedance through GPIO.
- Prevent NXAMP from working with Ethersound™ network that are not running at 48 KHz.
- Solve a bug in remote control through Ethersound™ when the amplifier was back from Stand-by.
- Solve a bug with the Overmute function from ESmonitor.
- Solve a bug when changing cabinet setup from ESmonitor.

Software change

- New Nxwin v4.1.0.1 firmware updater. This version of NXwin must be used with LOAD2_55. New installation procedure solving installation issues and minor bug fixes.

- ESmonitor v3.11.1 remote control software. Minor updates in the NXAMP control pages. Revision of the installation procedure.
- AVS-Firmware Updater v3.29 (for upgrading NXtension-ES4 firmware). Minor updates in the installation procedure.

Setups changes

There are now 437 different setups supported on 5 hardware, including 46 new setups regarding LOAD2_53. For details see the setup list enclosed.

EQ changes

- GeoD: Reverses to original HF frequency response (i.e. LOAD2_52 brick wall LPF has been suppressed and replaced by a 19 KHz LPF). Minor adjustments of attack/release time on some protections.
- PS15R2 NXS: Nxstream setups now have an improved extended frequency response in the HF, as the LPF in load 2.52 has been replaced by a slow roll-off filter.
- PS15R2 MON: Active and Passive Monitor setups have been adjusted for improved stage application efficiency (Extended bass response, MF EQ redesigned). Monitor setups are now available on NX242ES4 and NX242CAI.
- RS15 Cardio: Solves a non-audible distortion bug that was responsible for vue-meter triggering on ESmonitor.

Phase / Alignment changes

- GeoS1210 and GeoS1230: new time alignment allows now to match the phase response of both cabinets type from 40 Hz to 8 KHz.

New setups added

- 3 x PS8 + 1 x LS400 setups have been added on NXAMP (3 x PS8 Wideband or 3 x PS8 Crossover or 2 x PS8 Crossover + 1 x PS8 Wideband mode) on NXAMP.
- 2 x PS8 Crossover + 2 x LS600 on NXAMP.
- 2 x PS8 Crossover + 1 x LS600 Bridge on NXAMP.
- 3 x PS10R2 + 1 x LS600 setups have been added on NXAMP (3 x PS10R2 Wideband or 3 x PS10R2 Crossover or 2 x PS10R2 Crossover + 1 x PS10R2 Wideband mode).
- PS15R2 Active Monitor: Analog-like processing, Stereo mode (NX242ES4, NX242CAI, NXAMP), Nxstream, Crossover and Wideband, Stereo and Bridge mode (NXAMP), Mono with RS15 Omni, RS18 Omni or RS18 Omni Bridge (NXAMP).
- 2 x PS15R2 NXS (Nxstream) Wideband + 2 x PS15R2 MON (Monitor) on NXAMP.
- 2 x GeoS805 Crossover + 2 x LS600 on NXAMP.

- 2 x GeoS805 Crossover + 1 x LS600 Bridge on NXAMP.
- 1 x GeoS805 Crossover Bridge + 1 x LS600 Bridge on NXAMP.
- 1 x AlphaE Passive + 1 x B1-18 Crossover + 2 x S2 80 Hz (on NXAMP).
- RS15 + RS18 in Cardio or Omni mode on NXAMP.
- S1210 Active XO and WB on NX242ES4 and NX242CAI (LF on 1 and 2, HF on 3 and 4).
- S1210/S1230 Active LF 4 channels (Xover and Wideband) and S1210/S1230 Active HF 4 channels on NXAMP.

LOAD2_54 what's new

- There has not been any official release of the LOAD2_54.

LOAD2_53 what's new

New cabinet support

- No new cabinet has been added regarding LOAD2_52.

NX242CAI and NX242ES4 Firmware changes / Bug fixes

- No firmware change regarding LOAD2_52.

NXAMP Firmware changes / Bug fixes

- Minor bug solved in time alignment on some setups.
- Adding Checksum function to verify programming of the LOAD in factory.

Software change

- No software change regarding LOAD2_52.

Cabinets setups changes

- No setup change regarding LOAD2_52.

LOAD2_52 what's new

Critical update

The following critical update has been introduced in the LOAD2_52:

The acceleration protection of GeoD HF diaphragm has been improved. There is no difference in sound quality/ pressure level regarding previous LOAD (this protection is not audible on music material) but the integrity of the diaphragm is highly improved in case of intensive use.

New cabinet support

The new RS18 sub is introduced with LOAD2_52.

- **RS18 in Omni mode** is supported by NX242, NX242CAI, NX242ES4 and NXAMP.

- **RS18 in Cardio mode** is supported by NX242CAI, NX242ES4 and NXAMP.
- **RS18 with GeoD** is supported by NX242CAI, NX242ES4 and NXAMP.
- **RS18 with PS10R2** is supported by NX242CAI, NX242ES4 and NXAMP.
- **RS18 with PS15R2** is supported by NX242CAI, NX242ES4 and NXAMP.
- **RS18 with GeoS12** is supported by NX242CAI, NX242ES4 and NXAMP.
- **RS18 with GeoS8** is supported by NX242CAI, NX242ES4 and NXAMP.

NX242CAI and NX242ES4 Firmware changes / Bug fixes

- A bug has been solved regarding setups that were appearing twice in the setup list.

NXAMP Firmware changes / Bug fixes

- Solve a bug in GPIO mode 2.
- Solve a bug in saving settings.
- Update of Remote control protocol through Ethersound™ network.
- New display of the input patch (Analog/Digital split).
- Solve noise on shutdown from mains switch on U version.
- Implementation of Headroom function, similar to NX242.
- Optimization of the automatic dynamic range optimizer macro.
- Revision of the amplifier Peak limiter regarding speaker parameters.

Software change

- ESmonitor v3.8.0: LOAD2_52 introduce a major update in the Ethersound™ remote control of the NXAMP4x1 and NXAMP4x4. All functionalities of the NXAMPs are now fully remote controllable through the ESmonitor software. N.B.: NXAMP should have LOAD2_52 installed to have the full remote control through ESmonitor v3.8.0. NXAMP with previous revision of firmware installed will be supported but only limited parameters will be available in ESmonitor.
- AVS-FirmwareUpdater v3.10: Solve a bug when upgrading the Ethersound™ board of the NX242ES4: The unit is now always seen as a 4 Output / 0 Input (from network point of view).

Setups changes

There are now 391 different setups supported on 5 hardware, including 68 new setups regarding LOAD2_51. For details see the setup list enclosed.

EQ changes

- S2: when used with Geo or PSR2, bug solved in ArrayEQ center frequency.
- PS10R2: minor changes in EQ.
- PS15R2: minor changes in EQ.

Phase / Alignment changes

- LS400: Change low pass to be compatible with LS600
- PS8: Alignment on PS10R2 / GEO rather than on older PS range.
- S830: Revised alignment for better compatibility.
- S1210/S1230: Revised alignment for better compatibility.
- CD18: Revised alignment for better compatibility.
- S2: When used with Geo or PSR2 new polarity and alignment.
- RS15: Cardio mode improved with new phase, latency reduced.
- PS10R2: Positive polarity and alignment delay change.
- PS15R2: Positive polarity and alignment delay change.
- GeoD: Revised alignment for better compatibility.

Protection changes

- PS10R2: Peak limiter attack and release change.
- PS15R2: Peak limiter attack and release change.
- PS15: Active mode LF: Displacement VCEQ attack time bug fixed.
- GeoD: Active and Passive, improve the HF diaphragm acceleration protection.